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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,113	10/24/2003	Sivapackia Ganapathiappan	10010060-4	1640

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

ZALUKAEVA, TATYANA

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 09/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/693,113

Applicant(s)

GANAPATHIAPPAN, SIVAPACKIA

Examiner

Tatyana Zalukaeva

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 11 and 12 depend on cancelled claims 6 and 8, thus the metes and bounds of sought protection are not readily ascertainable.

For the purposes of the present communication cancelled claims 6 and 8 were taken as a base line for dependent claims 11 and 12.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1713

4. The term "monomer containing a convertible moiety" convertible, as per instant claims is interpreted in its common meaning as a monomer having functional group or moiety that can be converted into any other functional group or moiety.

5. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al (U.S. 5,990,202).

Nguyen discloses Ink-jet inks for ink-jet printing are provided which include a vehicle and a colorant, the colorant encapsulated by or associated with a primer core/shell polymer to form a primer/colorant combination, and the primer/colorant combination, upon printing on a print medium, encapsulated by a durable core/shell polymer (abstract). One or more surfactants may be used in conjunction with polymer presented by the formula (I). The surfactant(s) may be anionic, cationic, non-ionic, or zwitterionic (col. 7, lines 8-45).

Example 3 in col.27 provides for a binder polymer obtained by the process, as recited in claim 6 (cancelled).

The monomers, hexyl acrylate (25.6 g), MMA (36.8 g), poly(ethylene glycol) methyl ether acrylate (mw=404) (9.6 g) and acrylic acid (8 g) were mixed. To this mixture were added BRIJ 92 (0.81 g) and SOLSPERSE 27,000 (0.81 g). The chain transfer agent isooctyl-3-mercaptopro-pionate (0.82 g) was subsequently added. The mixture was shaken vigorously for 3 min, followed by sonication for 3 min to form an emulsion. The emulsion was saturated with nitrogen for 0.5 hr. Meanwhile, a solution of potassium persulfate (1.71 g) in water (700.85 g) was prepared in a three-necked 500 ml round

Art Unit: 1713

bottom flask and saturated with nitrogen. The persulfate solution was heated to 75.degree. C. The emulsion was added dropwise from an addition funnel to the aqueous persulfate solution over a period of 1 hr. The reaction temperature was maintained at the elevated temperature for 3.5 hr. The solution was then cooled to room temperature to obtain the core-shell polymer in water with a concentration of 10% by weight. The average particle size of the polymer solution was found to be 220 nm.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 12 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative as obvious over Winnik et al (U.S. 4,795,794). Winnik discloses a amphiphatic particles used in compositions with humectants and liquid vehicles

Art Unit: 1713

obtained by dispersion polymerization process for affecting the preparation of particles which comprises dissolving in a suitable solvent a mixture of at least two first monomer components including at least one second monomer having covalently attached thereto a dye moiety, subsequently adding to the reaction mixture a polymerization initiator, thereafter affecting polymerization of the reaction mixture by heating, and separating the product particles therefrom (abstract). Average particle size is 0.1-20 micron (0.1 micron=100nm) (col.6, lines 40,41). The resulting mixture from polymerization, i.e. the product particles are separated from the reaction mixture by usual known techniques, including filtration (col.4, lines 34). Here the term dispersion polymerization vs. emulsion polymerization is to distinguish the **resulting** solid dispersion of particles, from the **initial** liquid droplets emulsion of monomers. Therefore, basically the process is the same, but by emulsion the term means the initial reaction mixture, and in dispersion, the term means the resulting polymer particles, which are obtained in either process.

Claim 12 is a product-by-process claim, wherein the product-by-process is for the polymer binder that is the part of a claimed composition. The patentability of the product is defined by the product per se, not by the process, by which it is made. There is no evidence, or no reason to believe that the process of polymerization as instantly claimed produces a different product, that of Winnik, consult **In re Thorpe**, 227 USPQ 964 (CAFC 1985), wherein the Examiner rejected product-by-process claims over a product, which although prepared in a different manner, appeared to be the same (prima facie) as the claimed product.

Art Unit: 1713

Furthermore, because of the nature of product-by process claims, the Examiner cannot ordinary focus on the precise difference between the claimed product and the disclosed product. It is then Applicants' burden to prove that an unobvious difference exists. See *In re Marosi*, 218 USPQ 289, 292-293 (CAFC 1983).

In the instant case no Graham vs. John Deere analysis was made but rather the test set out in MPEP 706.03(e) and In re Marosi was applied while explaining why the claimed product does not patentably distinguish over the prior art under 35 USC 102/103.

See also footnote 11 O.G. Notice 1162 59-61, wherein a 35 USC 102/103 rejection is authorized in the case of product-by-process claims because the exact identity of the claimed product or the prior art product cannot be determined by the Examiner.

9. Other prior art references cited in PTOL-892 show relevant polymers and compositions.
10. Applicants Are advised to check the continuity data and submit the correct parent application number and patent number.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva whose telephone number is (571) 272-1115. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tatyana Zalukaeva
Primary Examiner
Art Unit 1713

August 30, 2004

A handwritten signature in black ink, appearing to read 'Zalukaeva', with a long, sweeping horizontal stroke extending to the right.